

CLAIMS

1. A resin for a photoresist composition, having a hydroxyl group bonded to a carbon atom at a polymer terminal, wherein a carbon atom in an α -position to said hydroxyl group has at least one electron attractive group.

2. A resin for a photoresist composition according to claim 1, having a $-CR^1R^2OH$ group at a polymer terminal, wherein R^1 and R^2 each represent, independently, an alkyl group, halogen atom, or halogenated alkyl group, and at least one of R^1 and R^2 is an electron attractive group selected from a group consisting of halogen atoms and halogenated alkyl groups.

3. A resin for a photoresist composition according to claim 1, wherein said electron attractive group is a fluorine atom or a fluorinated alkyl group.

4. A resin for a photoresist composition according to claim 2, wherein a proportion of structural units (M1) comprising said $-CR^1R^2OH$ group is at least 1 mol%, relative to a combined 100 mol% of all structural units other than said structural units (M1) within said resin for a photoresist composition.

5. A resin for a photoresist composition, having a substituent with a pKa value within a range from 6 to 12 at a polymer terminal.

6. A resin for a photoresist composition according to claim 5, wherein said substituent is a $-CR^1R^2OH$ group, wherein R^1 and R^2 each represent, independently, an

alkyl group, halogen atom, or halogenated alkyl group, and at least one of R¹ and R² is an electron attractive group selected from a group consisting of halogen atoms and halogenated alkyl groups.

5 7. A resin for a photoresist composition according to claim 1 or 5, further comprising an acid dissociable, dissolution inhibiting group.

8. A resin for a photoresist composition according to claim 7, further comprising (a1) a structural unit derived from a (meth)acrylate ester having an acid dissociable,
10 dissolution inhibiting group, and (a2) a structural unit derived from a (meth)acrylate ester having a lactone ring.

9. A resin for a photoresist composition according to claim 8, further comprising (a3) a structural unit derived from a (meth)acrylate ester having a hydroxyl group.

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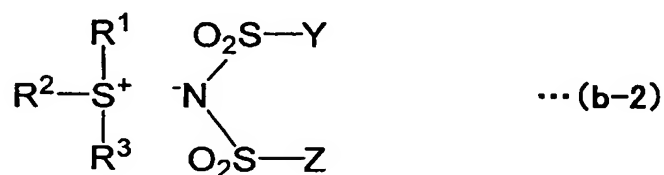
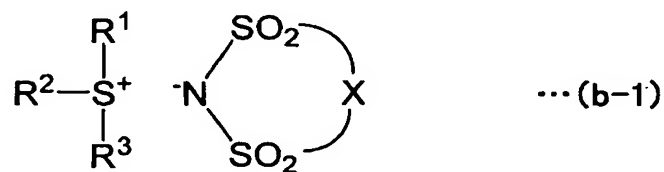
10. A resin for a photoresist composition according to claim 1 or 9, with a weight average molecular weight of no more than 12,000.

11. A photoresist composition, comprising a resin for a photoresist composition
20 according to claim 1 or 5.

12. A photoresist composition according to claim 11, further comprising an acid generator as a component (B).

13. A photoresist composition according to claim 12, comprising as said component (B), (b-0) an onium salt that comprises a fluorinated alkylsulfonate ion as an anion.

14. A photoresist composition according to claim 12, comprising as said component (B), a sulfonium compound represented by either of general formulas (b-1) and (b-2) shown below:



wherein, X represents an alkylene group of 2 to 6 carbon atoms in which at least one hydrogen atom has been substituted with a fluorine atom; Y and Z each represent, independently, an alkyl group of 1 to 10 carbon atoms in which at least one hydrogen atom has been substituted with a fluorine atom; R^1 to R^3 each represent, independently, an aryl group or an alkyl group, and at least one of R^1 to R^3 is an aryl group.

15. A photoresist composition according to claim 14, further comprising as said component (B), (b-0) an onium salt that comprises a fluorinated alkylsulfonate ion as an anion.

16. A photoresist composition according to claim 11, further comprising a nitrogen-containing organic compound.

17. A method for forming a resist pattern, using a photoresist composition according to claim 11.